



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/792,048	03/03/2004	Robert J. Smith	FSI-1	4756

21833 7590 10/20/2005
PRITZKAU PATENT GROUP, LLC
993 GAPTER ROAD
BOULDER, CO 80303

EXAMINER

NGUYEN, HUNG T

ART UNIT	PAPER NUMBER
----------	--------------

2636

DATE MAILED: 10/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/792,048

Applicant(s)

SMITH, ROBERT J.

Examiner

HUNG T. NGUYEN

Art Unit

2636

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3/3/04 & 9/26/05.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 42-70 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 42-53 and 68-70 is/are rejected.
7) ☒ Claim(s) 54-67 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 03 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 42, 47 & 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over La Bonte et al. (U.S. 5,931,233).

Regarding claim 42, La Bonte discloses a method for detecting a presence of wildfire (106) by photoelectric detection, smoke (190), thermal (188) or infrared sensors (185,192) [figs.1-5, col.2, lines 44-57, col.3, lines 3-8, col.5, lines 18-29 and col.11, line 27 to col.12, line 9 and col.21, lines 34-65] comprising:

- at least 2 phases of operations can be used if the presence of wildfire (106) is identified by the infrared sensors (185,188,190,192) [fig.1, col.2, lines 44-57, col.3, lines 3-8, col.5, lines 18-29 and col.11, line 27 to col.12, line 9 and abstract];
- phase 1, chemical treated water is provided to produce a cool fog dispersion pattern, the structure (102) being protected by a jet nozzles (130) [figs.2-3, ,5, col.5, line 53 to col.6, line 34, col.20, lines 39-62 and col.21, lines 34-65];

Art Unit: 2636

- phase 2, water soaking the surface of the structure (102) continuous as the flames pass through the area surrounding the structure (102) being protected by a jet nozzles (136) [col.11, lines 18-26, col.20, lines 39-62 and col.21, lines 34-65].

Although, the reference of La Bonte does not specifically mention wavelength, first and second ratios of oxygen compounds as claimed by the applicant.

However, the reference of La Bonte clearly teaches at least 2 phases of operations can be used to maximum protect the building structure (102) which is set up or programmed the system (100) if the presence of wildfire (106) is identified by the infrared sensors (185,188,190,192) [figs.2-3, ,5, col.5, line 53 to col.6, line 34, col.20, lines 39-62 and col.21, lines 34-65 and abstract].

Therefore, it would have been obvious to one having ordinary skill in the art to utilize the system of La Bonte for monitoring and controlling the wildfire at all time near or close to the building structure.

Regarding claim 47, La Bonte discloses an apparatus for detecting a presence of wildfire (106) by photoelectric detection, smoke (190), thermal (188) or infrared sensors (185,192) [figs.1-5, col.2, lines 44-57, col.3, lines 3-8, col.5, lines 18-29 and col.11, line 27 to col.12, line 9 and col.21, lines 34-65] comprising:

- at least 2 phases of operations can be used if the presence of wildfire (106) is identified by the infrared sensors (185,188,190,192) [fig.1, col.2, lines 44-57, col.3, lines 3-8, col.5, lines 18-29 and col.11, line 27 to col.12, line 9 and abstract];

Art Unit: 2636

- phase 1, chemical treated water is provided to produce a cool fog dispersion pattern, the structure (102) being protected by a jet nozzles (130) [figs.2-3, ,5, col.5, line 53 to col.6, line 34, col.20, lines 39-62 and col.21, lines 34-65];
- phase 2, water soaking the surface of the structure (102) continuous as the flames pass through the area surrounding the structure (102) being protected by a jet nozzles (136) [col.11, lines 18-26, col.20, lines 39-62 and col.21, lines 34-65].

Although, the reference of La Bonte does not specifically mention wavelength, first and second ratios of oxygen compounds as claimed by the applicant.

However, the reference of La Bonte clearly teaches at least 2 phases of operations can be used to maximum protect the building structure (102) which is set up or programmed the system (100) if the presence of wildfire (106) is identified by the infrared sensors (185,188,190,192) [figs.2-3, ,5, col.5, line 53 to col.6, line 34, col.20, lines 39-62 and col.21, lines 34-65 and abstract].

Therefore, it would have been obvious to one having ordinary skill in the art to employ the system of La Bonte for monitoring and controlling the wildfire at all time near or close to the building structure.

Regarding claim 70, La Bonte discloses a method for detecting a presence of wildfire (106) by photoelectric detection, smoke (190), thermal (188) or infrared sensors (185,192) [figs.1-5, col.2, lines 44-57, col.3, lines 3-8, col.5, lines 18-29 and col.11, line 27 to col.12, line 9 and col.21, lines 34-65] comprising:

Art Unit: 2636

- at least 2 phases of operations can be used if the presence of wildfire (106) is identified by the infrared sensors (185,188,190,192) [fig.1, col.2, lines 44-57, col.3, lines 3-8, col.5, lines 18-29 and col.11, line 27 to col.12, line 9 and abstract];

Although, the reference of La Bonte does not specifically mention detection wavelength is substantially blocked on propagation as claimed by the applicant.

However, the reference of La Bonte clearly teaches at least 2 phases of operations can be used to maximum protect the building structure (102) which is set up or programmed the system (100) if the presence of wildfire (106) is identified by the infrared sensors (185,188,190,192) [figs.2-3, ,5, col.5, line 53 to col.6, line 34, col.20, lines 39-62 and col.21, lines 34-65 and abstract].

Therefore, it would have been obvious to one having ordinary skill in the art to have the system of La Bonte for monitoring and controlling the wildfire at all time near or close to the building structure.

3. Claims 43-46, 48-53 & 68-69 are rejected under 35 U.S.C. 103(a) as being unpatentable over La Bonte et al. (U.S. 5,931,233) in view of Document of Hamamatsu, Flame sensor UV TRON R2868 issued on 3, 1998.

Regarding claims 43-46, The reference of La Bonte does not specifically mention the detection wavelength between 230 and 280 nm as claimed by the applicant.

However, A document from Hamamatsu teaches a flame sensor as UV TRON R2868 which as a narrow spectral sensitivity of 185 to 260 nm [fig.1, first page].

Therefore, it would have been obvious to one having ordinary skill in the art to have the teaching of Hamamatsu in the system of La Bonte for quickly flame or fire detection from remote distance and wide directivity as desired.

Regarding claims 48-53 & 68-69, The reference of La Bonte does not specifically mention the detection wavelength between 230 and 280 nm as claimed by the applicant.

However, A document from Hamamatsu teaches a flame sensor as UV TRON R2868 which as a narrow spectral sensitivity of 185 to 260 nm [fig.1, first page]. Therefore, it would have been obvious to one having ordinary skill in the art to use the teaching of Hamamatsu in the system of La Bonte for quickly flame or fire detection from remote distance and wide directivity as desired.

Allowable Subject Matter

4. Claims 54-67 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Traina (U.S. 4,016,424) Ultraviolet radiation detector.
- Wyatt (U.S. 4,251,810) Apparatus for and methods of remotely monitoring outputs of Geiger-Mueller tubes.
- Rogers et al. (U.S. 6,742,305) Fire protection cover apparatus for structures.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung T. Nguyen whose telephone number is (571) 272-2982. The examiner can normally be reached on Monday to Friday from 8:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hofsass, Jeffery can be reached on (571) 272-2981. The fax phone number for this Group is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700.

HUNG NGUYEN
PRIMARY EXAMINER


Examiner: Hung T. Nguyen

Date: Oct. 17, 2005